

BUREAU OF ENVIRONMENT CONFERENCE REPORT

SUBJECT: NHDOT Monthly Natural Resource Agency Coordination Meeting

DATE OF CONFERENCE: August 18, 2021

LOCATION OF CONFERENCE: Virtual meeting held via Zoom

ATTENDED BY:

NHDOT

Andrew O'Sullivan

Matt Urban

Mark Hemmerlein

Rebecca Martin

Arin Mills

Samantha Fifield

Maggie Baldwin

Marc Laurin

Jennifer Reczek

Tim Boodey

Joseph Jorgens

Jim MacMahon

Jeanie Brochi

NHDES

Lori Sommer

NHB

Jessica Bouchard

Federal Highway

Jaimie Sikora

NHFGD

Carol Henderson

The Nature Conservancy

LCHIP

Consultants/ Public Participants

EPA

USACE

Mike Hicks

PRESENTATIONS/ PROJECTS REVIEWED THIS MONTH: *(minutes on subsequent pages)*

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NOTES ON CONFERENCE:**Finalize Meeting Minutes**

Finalized and approved the July 21, 2021 meeting minutes.

Campton #42097 (Non-Federal)

Arin presented the project location of bridge 108/058 which carries US 3 over Bog Brook in Campton. This is a state funded project which will be a repair to existing structure to address scour. The location of the project is along Bog Brook which flows approximately 6.3 miles from the headwaters in the WMNF in Rumney to the site and further flows from the site approx. 0.1 miles to the convergence to the Pemigewasset River. Based on StreamStats watershed delineation the stream is a Tier 3 crossing. Arin provided an overview of the history of the bridge to include construction in 1929, rehabilitation in 1976 & 1980 and additional rehabilitation in 2001 to include curb and rail replacement and widening. The site is located in a rural/residential area between Interstate 93 and the Pemigewasset River. Photos were shown of the bridge, to include upstream/downstream as well as the areas of proposed impacts.

Tim provided an overview of the project to include installation of a concrete toe wall along the north abutment back to the original NW wing. The existing structure is believed to be built on the original granite block foundation, and the depth of the foundation is unknown. The project will also place rip rap along the north abutment and southeast wing wall to address scour. Tim provided a preliminary wetlands impact plans to show both temporary and permanent impacts. Permanent impacts within the stream are anticipated from installation of the toe wall. The site has limited existing rip rap, and installation of rip rap along the NW and SE wings to address scour will generate permanent impacts for installation. Temporary impacts are required for access and staging throughout construction. Access to conduct the work will be via foot traffic, and materials/equipment will be lowered by a crane from the roadway.

Tim further provided an overview of the construction sequence, to include installation of perimeter controls, cofferdam and silt boom at NW corner. Installation of forms and placement of toe walls will be done in the dry through use of a sedimentation basin in the upland. Use of a silt boom at the SE corner will be used during placement of the rip rap. Access and staging area will be revegetated as needed. The proposed work will not change the ability of the crossing to pass a 100-year storm event and there is no history of flooding at the crossing. Tim said an anticipated deck replacement will be occurring to the bridge in the next 1-2 years, and all staging is anticipated to be conducted from the abutment walls. An erosion control plan will be provided with the application.

Arin provided an overview of the environmental resources to include Bog Brook being a 3rd order stream and a Tier 3 stream with a drainage area of 6,441 acres calculated via StreamStats. The site is within the Pemigewasset River, a NH Designated River, and no previous permits were identified. Bog Brook is a predicted coldwater stream per the Wildlife Action Plan with Eastern Brook trout (hatchery) identified. A Natural Heritage Bureau review (NHB20-2781/NHB21-2670) has no recorded species occurrence and no Priority Resource Areas are in or adjacent to the project area. Bog Brook is within the 100-year floodplain with no BFE identified. The US Fish & Wildlife Service iPaC determined potential for Northern long-eared bat and a 4(d) consistency letter was generated. Section 106 determined No Potential to Cause Effect. Bog Brook is Essential Fish Habitat and coordination with NOAA is pending. No comments from the group?

Easton # 41249 (Non-Federal)

Tim presented the project location of Easton 139-148, NH 116 over Ham Branch. This will be a state funded and executed project that will replace the bridge deck and address undermining of the existing bridge substructure. This project was previously presented at the December 2016 NRA meeting. The wetland delineation was reviewed and the stream assessment data collected in August 2021. The NHB search was updated, and there were no hits. The IPOC search generated mentioned of the NLEB only. We will be reviewing the updated wetland impact areas. There are no designated wetlands in the project area.

This is a Tier 3 crossing. The Ham Branch is about 12.2 miles long with its headwaters in Easton, mostly following NH 116. From this crossing the Brook flows north about 7 miles to the Gale River. No PRA were identified, this crossing was not identified as an essential fish habitat, there are no Shoreline Protection Area concerns, no adjacent conservation areas and it is not located in a FEMA floodplain. The crossing is located in a rural, residential area. A location map and property boundary map were shown.

This bridge was constructed in 1933 and other than routine maintenance and an upgrade to the approach guardrail, no other major work has been done. Photos were shown of the bridge, to include upstream/downstream as well as the areas of proposed impacts.

Tim provided an overview of the project to include installation of a concrete toe wall along the north abutment back to the original NW wing. The existing structure is believed to be built on the original granite block foundation, and the depth of the foundation is unknown. The project will also include the placement of rip rap along the north abutment and southeast wing wall to address scour. Tim provided a preliminary wetlands impact plans to show both temporary and permanent impacts. Permanent impacts within the stream are anticipated from installation of the toe wall. The site has limited existing rip rap, and installation of rip rap along the NW and SE wings to address scour will generate further permanent impacts within the stream. Temporary impacts are required for access and staging throughout construction. Access to conduct the work will be via foot traffic, and materials/equipment will be lowered by a crane from the roadway.

Tim further provided an overview of the project and construction sequence. The concrete deck will be replaced. It will be done using phase construction and the deck will be widened from 21' curb to curb to 29' curb to curb. This is to allow for traffic flow during the phased construction and future maintenance needs. The northern abutment is undermined and will have a toe wall installed with bank stabilization. A proposed impact area map was shown which included widening the existing abutments to the east and installing new wing walls at the inlet side. There will be some widening on the downstream side as well but it will be on the existing abutment without an increase in footprint to the downstream. There is proposed rip rap installation at the new wings on the inlet side and along the northern abutment. The work is planned to begin in the fall of 2022 and will take 14 weeks to complete. Sheet cofferdams will be installed starting on the upstream side for the substructure widening and new wing wall construction. Stream flow will remain uninterrupted through the center of the structure during construction. The toe wall at the northern abutment will be installed during the first phase of the deck replacement. Draft impacts were shown with the majority coming from the substructure widening and structure protection. The DOT anticipates showing mitigation areas associated with this increase in footprint. There is no history of flooding at this location and the work is not anticipated to change the ability of the crossing to pass the 100-year storm event or affect the chance of flooding. A professional engineer hydraulic write-up and erosion control plan will be included in the application package.

The DOT will be bringing this project to a Cultural Resources Meeting, we are trying to get into the September meeting. The reinforced concrete rails are original to the 1933 construction and will have to be removed during the deck replacement and widening. The minutes from this meeting can be included in the application package, although there are not any anticipated changes to the wetland impact areas.

Lori Sommer, NHDES, wanted us to highlight wetland rule 904.09 in the application, show existing and proposed rip rap on the plans for mitigation purposes and was satisfied that we are going to address the Q100.

Carol Henderson, NHF&G, mentioned that the NHB did not have any hits and the project should be culturally reviewed.

Michael Hicks, ACOE, had no comments.

Dalton #2021-M111-1 (Non-Federal)

Jim McMahon, D1 Assistant District Engineer presented the project which is a culvert maintenance project on NH Route 135 in Dalton. It was described work was previously completed at this location in 2008 and since then the outlet has not held up resulting in the pool in front of the structure to partially fill with sediment and the creation of a pool along the edge of the stream.

Proposed work would replicate what was done in 2008 by removing material from the pool that has filled in, in front of the culvert, and place larger stone along the bank. J. McMahon shared a 2008 plan with new impacts shown in previously permitted impact areas and comparison photos.

Lori Sommer of NHDES asked what the previous permit number was and J. McMahon indicated it was 2006-1640. L. Sommer said wetland rule 904.09 would need to be addressed and there is a need to look into what is contributing to the sedimentation, and asked if hydraulics have been looked at. L. Sommer said she would flag the project as needing follow up with Karl.

Carol Henderson of NHFG said John Magee wants to participate with the stream passage solution and help by coordinating with Jim. It appears the pool creation was to eliminate the perch of the culvert and this should still be the goal. Also, J. Magee had mentioned that fish weirs were installed at some point and is willing to work with the engineer to resolve the issues at this culvert.

Mike Hicks of ACOE said no corps permit is needed because the project is within the same footprint.

Charlestown #43565, NH Route 12 Roadway Reopening

Andy O'Sullivan introduced the project and explained that the NH Route 12 roadway is currently closed with a detour through Vermont.

The Project Manager, Jason Ayotte shared that the purpose of the project is to reopen NH Route 12 and explained that the Charlestown 43565 project area is approximately 1-mile north of the current construction for the Walpole-Charlestown project. J. Ayotte described that the project is working through the need for right-of-way acquisitions, easements and rights of entry. He stated that the main goal for the meeting, since specific design details are not available, is to describe the range of alternatives and why the work is necessary. The current road closure and detour are a significant concern. Public officials want NH Route 12 opened as soon as possible. The detour will impact school traffic, the local economy, and a farmer who typically moves his harvest in September. J.

Ayotte showed a map to orient folks to the project location and explained that the project is near Dickerson Brook and the Connecticut River and adjacent to the railroad.

J. Ayotte described the conditions that led to the road closure. He stated that the region had the wettest July on record and storm damage in many towns. Storms on July 29th and July 30th dropped nearly 5 inches of rain in 6 hours. There were continued rain events through August 2nd when the slope failure was reported. Initially, NH Route 12 was reduced to one lane with two-way alternating traffic. Later, after a field review by the NHDOT Bureau of Materials and Research determined the road needed to be closed and a detour was established. J. Ayotte showed maps of the detour and explained that it is approximately 20 miles into Vermont. NHDOT District 2 and District 4 staff have been working diligently to reopen roadways in other areas of closures resulting from the storms.

J. Ayotte described the current conditions within the project area. He explained that the roadway is in an unstable condition with saturated soils. He shared that there is a concrete slab underneath a variable amount of pavement that ranges from 2 inches to 6 inches thick. Differential settlement caused cracking in the roadway pavement and the concrete slab down the centerline. It seems as though the concrete slab is actually holding the road together, though the drillers have found some voids. The roadway is currently supporting the railroad embankment. There has been and continues to be groundwater seeping through the railroad slope.

J. Ayotte explained that the slope failure is approximately 300 feet long, the roadway differential settlement between the northbound and southbound lanes is around 500 feet long and the project team expects that the concrete pavement damage is around 700 feet long. NHDOT staff are currently investigating the limits of voids and unstable subgrade soils in the project area. They are also investigating the stability of the railroad embankment. There is poor drainage due to inadequate ditch lines and very high groundwater conditions. The project team believes the road was built on railroad materials.

J. Ayotte shared details about the project's purpose and that a lot is happening to develop the project concurrently. He explained that preliminary design is happening alongside the NEPA review and wetland permit application development. J. Ayotte is planning for a shortened bid period with advertising in early September 2021 and work beginning in mid-September. J. Ayotte stated construction duration is anticipated to be 10 to 12 weeks. The proposed solution to the failure is still being determined. For public involvement, J. Ayotte is planning to discuss the project at the Charlestown Board of Selectmen meeting next week. J. Ayotte explained that the team will be requesting an expedited permit as the project timeline and the standard wetland timelines are not compatible.

J. Ayotte explained some of the project constraints including that the project is avoiding any permanent impacts to the floodplain at the toe of the roadway slope and is trying to avoid the railroad zone of influence. J. Ayotte showed typical sections of the two alternatives currently being considered for the project. The first and preferred alternative is the reinforced soil slope, which would minimize impacts in the project area and rebuild the existing slope. Drainage improvements are proposed. The second alternative is full reconstruction and excavation to remove all the compromised soils and replace them. At this time, the depth of excavation that would be necessary is not known.

Rebecca Martin reviewed the natural resources in the project area. She explained that wetlands and one intermittent stream have been delineated in the project area. There are forested and forested, scrub shrub wetlands at the toe of the roadway slope near the floodplain. The back edges of the wetlands were not delineated. The wetlands at the toe of slope are expected to be impacted in order to construct the slope repairs. There is the potential for ditch work at the northern end of the project to impact the intermittent stream in the project area. However, the crossing itself is not expected to be impacted by the project. There is also a small wetland in the ditch between the railroad and the roadway that is anticipated to be impacted by ditch work for the project. The project does not propose any impacts to Dickerson Brook or the Connecticut River. R. Martin commented that on the aerial you can see the close proximity of the railroad to the roadway, which are closer together in the southern portion of the project and slightly more spaced out in the northern portion of the project.

R. Martin showed a table of preliminary impacts. R. Martin explained that, since the project impacts are not known at this time, the project team is planning to apply for a permit to cover the worst case scenario, assuming the most possible impacts including permanent impacts to the wetlands at the toe of the slope for the reconstruction and temporary impact for construction of an access road. NHDOT is planning to request that the NHDES Commissioner expedite the permit application review timeline. Matt Urban has contacted Mary Ann Tilton and Karl Benedict to begin coordination and Mary Ann Tilton has shared guidance and rule references. The project team understands that the expedited request will require a complete wetland application and good cause to grant the request to expedite. The proposed permanent impacts to wetlands is less than 10,000 square feet, estimated at 7,000 square feet. R. Martin proposed that no mitigation be required to the emergency nature of the project and since permanent impacts are less than 10,000 square feet.

R. Martin explained that the project area wetlands are priority resource areas. Impacts are proposed to floodplain wetlands and there are documented occurrences of protected species in the project area.

R. Martin described that based on available mapping of the confluence of the Connecticut River and Dickerson Brook, the project is not within 250 feet of the Connecticut River, and so, is not under the jurisdiction of the Shoreland Water Quality Protection Act. The project is within 0.25 miles of the Connecticut River, so emails have been sent to the Connecticut River Joint Commissions and the Connecticut River Mount Ascutney LAC.

There are three federally listed species that were listed on the IPaC species list, northern long eared bat (NLEB), the dwarf wedge mussel and the northeastern bulrush. R. Martin explained that the project qualifies for the NLEB 4(d) rule and a project submittal form was sent through IPaC. Since no impacts are proposed to the Connecticut River nor Dickerson Brook, no dwarf wedge mussels are anticipated to be within the project area. Coordination with US Fish and Wildlife Service (USFWS) confirmed that the habitat in the project area does not appear to be suitable for northeastern bulrush. Consultation with USFWS is complete, pending the 30-day waiting period after submittal of the project for the NLEB 4(d) rule.

State species of special concern: bald eagle and northern leopard frog are on the projects NHB report. Coordination has been completed with NH Fish and Game Department and recommendations are being incorporated into the project plans. Recommendations include: to

retain mature canopy trees with strong horizontal branching such as locust, oaks and pines wherever possible to preserve perching, winter roost and potential nesting trees for bald eagles; to use wildlife-friendly erosion control and avoid the use of welded plastic or 'biodegradable plastic' netting or thread (e.g. polypropylene) in erosion control matting; and to erect silt fence in late summer to exclude Northern Leopard Frog from the work area. R. Martin explained that the silt fence may need to be put up at the edge of the wetland and then new fence erected in the wetland at the edge of the project impacts if work might begin before the wetland permit is received.

R. Martin explained that the project does not propose any additional impervious area, so no permanent stormwater treatment is proposed. The project does seem likely to have more than 1 acre of impacts and require coverage under the Construction General Permit. Since the project is not within the shoreland zone, it is not clear if it will exceed the Alteration of Terrain threshold of 100,000 square feet of impacts. The project does propose temporary floodplain impacts, but those will be restored. No conservation lands are known to be located near the project area. There are no LCIP (CLS) nor LCHIP properties in the project area.

***Edit: a response from DNCR was received and there are no LWCF State and Local Assistance Program assisted properties within any proximity of concern to this emergency road project. A map of the wildlife action plan was shown, the project is located in supporting habitat and near highest ranked habitat.

R. Martin explained that the project was reviewed for cultural resources in accordance with the Programmatic Agreement and a no historic properties affected determination has been made.

Lori Sommer recommended sending the presentation to Karl Benedict. She was glad to hear that the expedited review is being coordinated with Karl Benedict and Mary Ann Tilton. L. Sommer agreed that the project is below the 10,000 square feet of impact threshold and does not require mitigation. She noted that the emergency status of the project does not influence the need for mitigation. L. Sommer noted that a good revegetation plan would be needed for the floodplain impacts with a couple of years of monitoring. She recommended staying in close contact with Karl Benedict.

A. O'Sullivan commented that this project is NHDOT's number one priority.

Carol Henderson commented that there seems to be a good plan developed with Kim Tuttle and requested to be kept in the loop regarding whether the project crosses the AoT threshold.

Mike Hicks inquired about the project funding and J. Ayotte explained that the project has a FHWA number and the intent is to receive FHWA reimbursement. M. Hicks requested that the wetland application be sent to ACOE at the same time it is sent to NHDES to expedite the review process.

R. Martin inquired about the planting plan and if it would need to be submitted with the wetland application. L. Sommer explained that the planting plan should be outlined in the wetland application with the intent of the plan explained and details of how the project would address a late season planting. She noted that the permit could be conditioned on a final plan being submitted at a later date.

Jamie Sikora inquired about whether the project is an immediate emergency repair or a permanent repair. J. Ayotte explained that he is in regular contact with Yamilee (sp?) at FHWA and that only the detour was an emergency repair. The work needed is beyond the District's capability. R. Martin explained that the project will require a NEPA review and she is working on a Programmatic C.E.

A. O'Sullivan agreed to send the project's presentation out to all NRACM attendees.